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# Pastoralist trials pain relief

**THE Brockhurst family from Larrawa Station in the East Kimberley has used pain relief for yard husbandry procedures since 2017 and this is their experience as told by Stephen Brockhurst.**

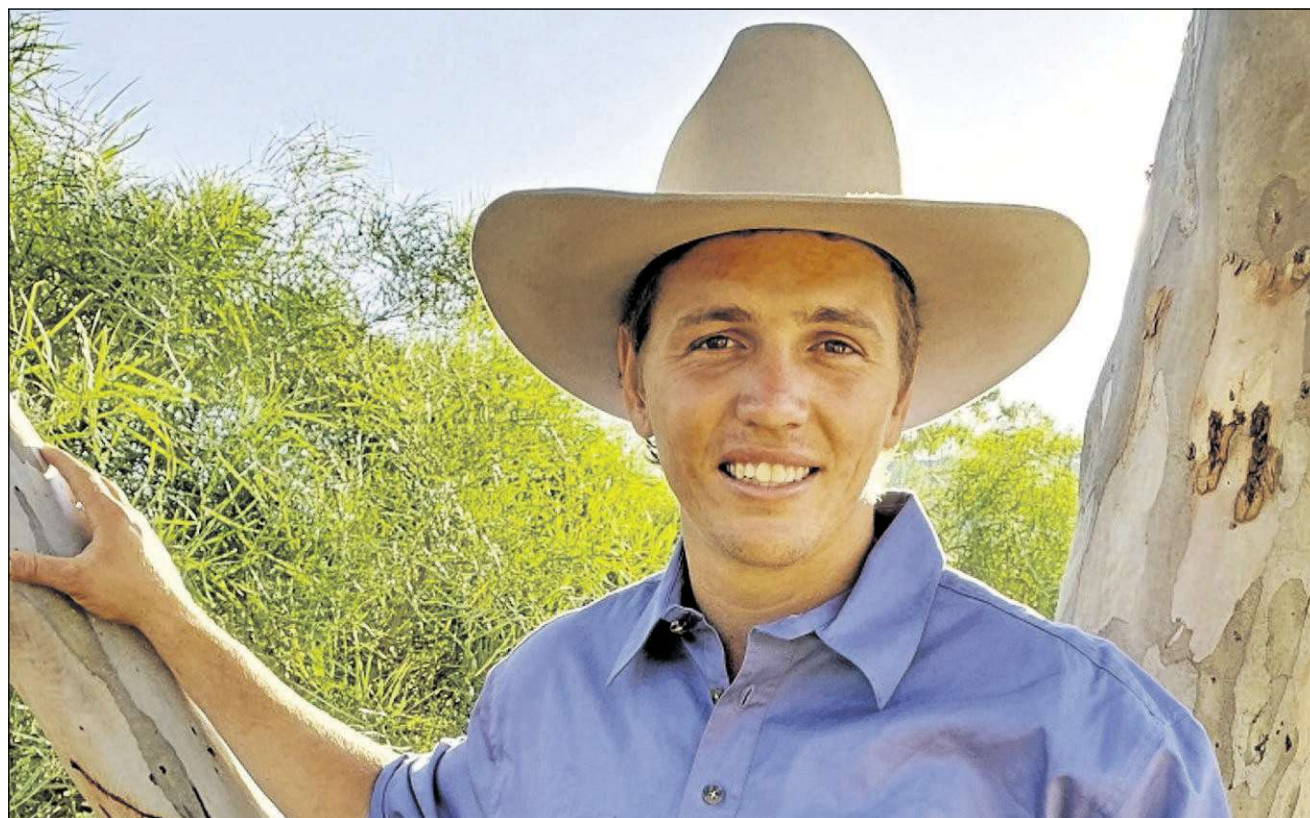
We used a Western Australia state government Business Improvement Grant (BIG) to trial the pain relief product Buccalgesic.

Our main reasoning behind trialling pain relief was the welfare of our weaners - some of our necessary husbandry procedures do cause pain, and if we can, we want to minimise that.

Our family is also aware that animal welfare is increasingly becoming a focus in this industry and we wanted to take that into account. We wanted to see what impact pain relief would have on our weaners during branding, particularly if there could be further benefits such as a decrease in time off feed.

When processing weaners, we orally apply Buccalgesic to the side of their gums.

It usually takes around



Stephen Brockhurst, Larrawa Station, East Kimberley has used pain relief for yard husbandry procedures since 2017.

about 10 minutes before it kicks in and the cattle start responding to it.

We used Buccalgesic when processing both heifers and steers, but our main priority was using it on

young bulls when they were being castrated.

We trialled Buccalgesic on our weaners in 2017 through the BIG program and then decided to continue using it through our own funds.

The decision to continue using the product was based on the response we saw in our cattle - namely that the weaners were not sulking and returned to normal behaviour (eating, drinking

etc.) quicker than those not treated.

One issue we are mindful of with the product is that it can fall out of the animal's mouth if not applied correctly.

We found that applicator guns with a hook-shaped tube, instead of a straight tube are better suited.

I would recommend using Buccalgesic if it can be worked into the program and budget. It works very well for us with our early weaning program, where the weaners are kept in the yards.

For other stations that turn weaners out onto good-quality pasture immediately after processing, the benefits may be subtler.

It's important for each owner and manager to measure up the pros and cons, and make sure they choose the type of pain relief that is right for their operation.

Either way, I think using anything that results in good animal welfare outcomes is good for our business.

If you wish to gain further insight into how pain relief can be used in your management system, please contact your local veterinarian.

■ Mariah Maughan, Development officer, Department of Primary Industries and Regional Development, Broome, (08) 9194 1442.

## THE SWEET SPOT PROJECT KEEPS MOO-VING ACROSS NORTHERN AUSTRALIA



THE sweet spot project has passed its first hurdle to identify suitable breeder datasets to help find the sweet spot of pasture utilisation for reproductive performance in northern Australia.

The project aims to develop tools to predict the impact of pasture utilisation on reproduction.

This allows producers to optimise pasture use to maximise kilograms turned off, while maintaining the

resource base.

The first phase of the project has identified existing breeder datasets across northern Australia that can be collated and modelled. After 64 datasets were reviewed, 28 were found to be suitable for the project. This is considerably more than originally envisaged. Given the unexpected wealth of datasets for the Northern Territory (NT) the project was granted additional time

and resources to analyse and model the datasets.

The NT is well represented with 79 per cent of the datasets. The data is from 1993-2018. So far there are nearly 90,000 records of cattle data from 24 different properties and around 120 paddocks.

The next phase of the project is to calculate consistently derived reproductive performance indices across all the herds and to model pasture

utilisation for each herd for each year. Reproduction indices include annual pregnancy, pregnant within four months of calving while lactating, foetal and calf loss, missingness (an indicator of female mortality) and weaner production.

For more information contact NT Department of Primary Industry and Resources researchers, Robyn Cowley on 0419 829 493 or Kieren McCosker on 08 8973 9771.

### COLLABORATION

#### Sweet spot project

■ The \$2 million Meat & Livestock Australia funded project is led by the Northern Territory Department of Primary Industry and Resources, collaborating with the Queensland departments of Agriculture and Fisheries, and Environment and Science.



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# What if rain doesn't arrive?

THE wet season is a good time to review key decision dates that may trigger management decisions.

The onset of the growing season varies across northern Queensland; therefore, it is important to know when is typical for your area.

The start of the growing season is known as your green date - the date at which there is a 70 per cent chance of having a rainfall event of 50 millimetres over three days.

Once you have received sufficient rainfall to promote plant growth, and provided your country is in good land condition, it can take four to six weeks for enough pasture bulk to be grown to sustain live weight gain.

This point in time is known as your production date.

The first key decision date is halfway through the growing season.

In some years, there won't be adequate rainfall and if you haven't reached your production date by this point (halfway through the growing season), management decisions will need to be made.

A late wet season will result



With such high seasonal variability, it is not worth placing all hopes on an early break of season.

in less time for plants to grow before seasonal conditions become unfavourable and therefore, a smaller biomass of pasture will be available.

When you muster, consider lightening your stocking

rates to accommodate for less available pasture.

This may be an opportune time to sell livestock rather than waiting until the dry and selling alongside the masses, when the prices will

be often lower.

The second key decision date is at the end of the growing season.

This is an ideal time to complete a forage budget to determine whether the avail-

able pasture in each paddock will meet animal demand and sustain your livestock, while meeting performance targets through to your next production date.

There are a number of vid-

eos on futurebeef.com.au to step you through how to do a forage budget.

The third decision date is halfway through the non-growing season.

Critically review stocking rates and pasture supply to determine if the current number of livestock can still be carried until the next production date.

With such high seasonal variability, it is not worth placing all hopes on an early break of season.

Ensuring that you have a good body of feed in the dry season will reduce the requirement and expense of energy supplementation.

By setting key decision dates, reviewing the situation at each point and making appropriate stocking-rate adjustments, you can avoid a decline in land and livestock condition as well as costly supplementation.

To work out your green date, visit [climateapp.net.au/](http://climateapp.net.au/)

For more information about identifying key decision dates for your property, please contact your local beef extension officer through futurebeef.com.au.

## MANAGEMENT OF PHOSPHORUS ESSENTIAL IN NORTHERN GRAZING SYSTEMS



FEEDING phosphorus (P) over the wet season, coupled with getting the stocking rate right on your property, are key strategies for a beef producer's bottom line in north Queensland.

In October, Department of Agriculture and Fisheries beef extension staff delivered three P days on properties across the north, from Georgetown to Burketown, where soil P is considered deficient.

Dr Rob Dixon from the Queensland Alliance for Agriculture and Food Innovation, said management of P nutrition was essential in northern grazing systems.

"P deficiency is often the most important nutritional constraint for cattle in northern rangelands that we can economically fix," he said.

Northern Territory Department of Primary Industries and Resources researcher Tim Schatz spoke about

massive responses to P supplementation in their research trial at Kidman Springs.

They saw large increases in pregnancy rates and calf weaning weights, and reductions in calf loss and cow mortality.

This resulted in a 500 per cent return on investment over five years for money spent on P supplement.

"Importantly, producers must realise that feeding P will increase pasture intake

by cattle," Tim said.

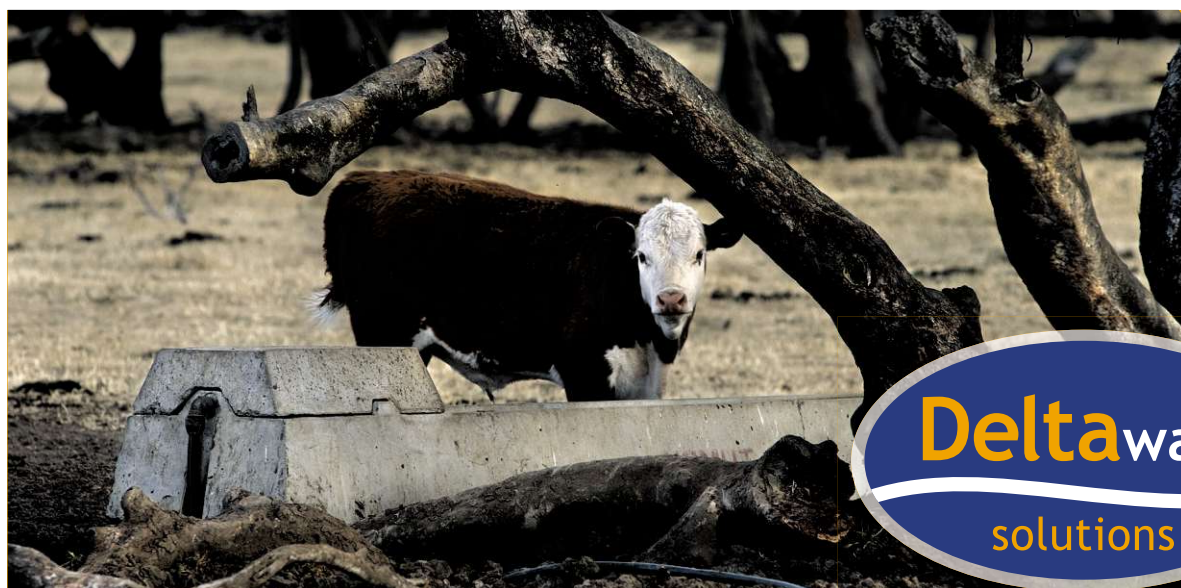
"Thus, stocking rates need to be adjusted so as to meet carrying capacity and feed available in the paddock."

Spot surveys at the Georgetown and Norman days showed that most of the attending Northern Gulf producers had a wet season P plan in place.

However, the cost of starting a P program is still of concern for some producers.

### CONSIDERATIONS

- P supplementation is economically effective in P deficient soils of northern Queensland.
- Intakes increase when P is fed, so assess stocking rates and available pasture.
- If cost is prohibitive, target a proportion of the herd, e.g. heifers.
- Varying the salt/P ratio can help limit or increase intakes.



*"I had cattle and sheep drinking on the line and I was not getting enough water through the system because my mineral-laden bore water was blocking my main pipe. I was quite stressed. The DELTA unit got things working straight away. It was a great relief."*

Steven McCracken, Eyre Peninsula SA

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# Toxic disease explained

## Safeguard your herd against botulism

**B**OTULISM is a paralysing disease caused by botulinum toxin, produced by the bacterium *Clostridium botulinum*.

*Clostridium botulinum* spores are common in the soil and also found in the gut of healthy cattle and other animals in tropical environments (which includes most of Queensland), where they are usually not a problem. Spores are the dormant form of the organism.

Only actively growing *Clostridium botulinum* bacteria produce botulinum toxin. It is the toxin that causes disease. *Clostridium botulinum* spores only germinate and grow where oxygen is totally excluded, for example, within rotting animal and vegetable matter.

When ingested by livestock the toxin binds strongly to nerve endings, preventing nerve impulses to muscles and causing paralysis.

Seven types of toxin have been identified designated A to G. In Australia, most botulism outbreaks in cattle and sheep are due to type C or D toxin. The toxin is quite stable and may remain in contaminated feed or water for some time. Vaccination is the only effective way to prevent outbreaks.

Botulism is commonly seen in Queensland, espe-



Botulism is commonly seen in Queensland, especially in phosphorus-deficient areas and during droughts where it is often associated with cattle eating bones and carrion.

cially in phosphorus-deficient areas and during droughts where it is often associated with cattle eating bones and carrion to satisfy a craving for phosphorus and/or protein.

Outbreaks are also seen in intensively fed beef and dairy cattle mostly due to feedstuffs contaminated with dead animals such as snakes, birds, possums and mice. Large outbreaks have occurred in dairy cows being fed total mixed rations based on silage.

In some cases, producers have lost two-thirds of their dairy herd over a two-week period. Other outbreaks have involved dairy herds where poultry litter has been used to fertilise pastures.

Cattle have eaten litter piled ready to be spread on pastures or litter that has been

### BOTULISM

■ Botulism is commonly seen in Queensland, especially in phosphorus-deficient areas and during droughts where it is often associated with cattle eating bones and carrion to satisfy a craving for phosphorus and/or protein.

spread on pasture but not incorporated into the soil.

Legislation now prohibits feeding animal matter, including chicken faeces and chicken litter, to livestock and livestock must be denied access to this material. Animals are only allowed to graze pasture fertilised with chicken faeces or litter if it is ploughed into the soil or given time to be incorporat-

ed into the soil first.

Symptoms vary dramatically depending on the dose of toxin and any pre-existing immunity that may be present. Symptoms vary from sudden death (animals collapse and die in several hours) to a slowly progressive paralysis where death may take days. In the latter case, the first signs are cattle off their feed and water. Then they develop a wobbly gait (staggers) and eventually go down. During the staggers stage, some cattle become aggressive because they feel helpless.

Not all cattle that develop botulism symptoms will die and some mildly affected cattle will recover. Generally speaking, once cattle go down, their likelihood of recovery is poor. Cattle affected by botulism do not

develop a fever. Cattle may progress to the stage where they have difficulty breathing and typically lie on their brisket with their hind legs stretched out behind them. Tongue paralysis may or may not be a feature of the disease. At post-mortem there are no obvious signs other than those associated with being down.

The only effective long-term prevention strategy for botulism is vaccination with bivalent botulinum vaccines. In phosphorus-deficient areas, where botulism risk is very high, vaccination against types C and D botulism has been widely adopted as standard industry practice.

Beef and dairy producers who feed their cattle a prepared ration, especially those based on silage or

by-products such as brewer's grains, should vaccinate their cattle against botulism.

A range of different botulism vaccines on the market are highly effective. Some newer vaccines only require a single shot, where the traditional vaccine requires two shots a month apart. Both the one-shot and two-shot vaccines produce a similar result, and the decision about which type of vaccine to use depends largely on cost and convenience. All vaccines require boosters be given to maintain protective levels of immunity. Consult package information or the vaccine manufacturer for advice on the timing of booster vaccinations.

Other prevention strategies include:

- phosphorus and/or protein supplementation that may assist in reducing bone chewing
- preventing stock having access to rotting animal and vegetable matter, including in water
- ensuring feedstuffs are not contaminated with botulinum toxin
- controlling vermin during the harvest, preparation and storage of animal feedstuffs
- preventing stock from having access to piles of chicken litter (there is a chicken litter feeding ban in Queensland)
- incorporating chicken litter into the soil immediately after being spread.

For more information visit [business.qld.gov.au](http://business.qld.gov.au) and search for botulism.

■ Megan Gurnett, Beef extension officer, Department of Agriculture and Fisheries, Toowoomba, 07 4529 4221.

## PASTURE SUPPLEMENTS RANGE



## RumiPower Accelerate

Rumi Power Accelerate specifically formulated to provide supplement feed support for cattle during dry conditions and for production feeding of younger cattle.

## RumiPower Control

RumiPower Control specifically developed to provide supplement feed support to pregnant and lactating breeders.

For more information call  
Cameron: 0427 765 711  
Luke: 0459 954 002

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